

Applicant respectfully submits that claim 1 is patentable over List in view of Gambino as there is no disclosure or suggestion in the references of depositing a material over the top metal interconnect level and patterning and etching that material to form a bottom electrode on a first metal interconnect line of the top metal interconnect level and a cladding on a second metal interconnect line of the top metal interconnect level. List teaches an on-chip de-coupling capacitor (14-18) formed on one line 72 of a metal interconnect layer. While List does teach a second metal line 74 or 78, List does not teach a cladding on a second metal line (much less a cladding formed by depositing a material that is patterned and etched to form a bottom electrode on the first metal line and the cladding on the second metal line). Gambino teaches using the metal interconnect layer itself as the bottom electrode. At most, a combination of the references would suggest modifying the bottom electrode of List to be formed from the lower metal interconnect level (72) rather than a separate layer. This does not accomplish the claimed invention as it would not provide a cladding over a second metal line (metal lines 74 or 78 of List). One of ordinary skill in the art would not consider the metal line 72 of Gambino that is formed on a via as a metal cladding on an interconnect line. Nor would a metal line formed on a via as in Gambino suggest to one of ordinary skill in the art modifying List to form a cladding on metal lines 74 or 78 in order to accomplish the claimed invention.

Moreover, the Examiner argues that one would be motivated to combine the "protective cap" of Gambino with the structure of List in order to protect the copper metal because List teaches that copper metal is sensitive. However, Gambino does not disclose or suggest that metal line 72 is a "protective cap". The "protective cap" terminology is added by the Examiner. Since Gambino does not teach that the metal line is protective of the underlying via, there is no suggestion to use it over sensitive copper metal.

There is no disclosure or suggestion in the references as combined of depositing a material over the top metal interconnect level and patterning and etching that material to form a bottom electrode on a first metal interconnect line of the top metal interconnect

level and a cladding on a second metal interconnect line of the top metal interconnect level. Accordingly, Applicant respectfully submits that claim 1 and the claims dependent thereon are patentable over List in view of Gambino.

Applicant respectfully submits that claim 9 is similarly patentable over the references. There is no disclosure or suggestion in the references of a decoupling capacitor located over the topmost metal interconnect level, wherein a bottom electrode of the decoupling capacitor is electrically connected to the first metal interconnect line and a cladding on the second metal interconnect line, wherein the cladding and the bottom electrode comprise the same material. At most Gambino would suggest modifying List to form the bottom electrode out of the topmost metal interconnect level rather than adding a cladding to a second line of the topmost metal interconnect level. Accordingly, Applicant respectfully submits that claim 9 and the claims dependent thereon are patentable over the references.

In light of the above, Applicant respectfully requests withdrawal of the Examiner's rejections and allowance of claims 1, 3-9, 11-15. If the Examiner has any questions or other correspondence regarding this application, Applicant requests that the Examiner contact Applicant's attorney at the below listed telephone number and address.

Respectfully submitted,

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